

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the instant application:

Listing of Claims:

1. (Currently Amended) A polymeric additive system comprising:
 - a) a liquid component, and
 - b) a solid component, the solid component comprising polymeric additive particles, the polymeric additive particles comprising:
 - (i) a first population of polymer particles, and
 - (ii) a second population of polymer particles,wherein the first population of polymer particles and the second population of polymer particles are derived from polymers derived from diene, diene/vinyl aromatic or crosslinked diene/vinyl aromatic monomers; polymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio to provide for differences in glass transition temperature; ~~ethylene-vinylacetate ("EVA") type copolymers; polymers derived from olefins;~~ copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with EVA; and, copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with polyolefins;wherein the mean particle diameter of the first population of polymer particles is at least 50% larger than the mean particle diameter of the second population of particles,
wherein the first population of polymer particles has a mean particle diameter of 300 to 50,000 nm, and

wherein the compositions of the polymer particles in the first and second populations are essentially the same, and wherein the solid component is present in an amount of more than 50 weight percent, said weight percentage being based on the total weight of the polymeric additive system; and wherein the liquid component comprises at least 5 weight percent water, said weight percentage being based on the total weight of the polymeric additive system's liquid component.

2. (Previously Presented) The polymeric additive system as recited in claim 1 wherein the solid component is present in an amount of at least 55 weight percent, said weight percentage being based on the total weight of the polymeric additive system.

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The polymeric additive system as recited in claim 1 wherein the first population of polymeric additive particles has a mean particle diameter in the range of from 300 to 600 nm.

6. (Currently Amended) A process for making a polymeric additive system comprising: a liquid component, wherein the liquid component comprises at least 5 weight percent water (based on the total weight of the liquid component); and a solid component, wherein the solid component comprises polymeric additive particles, said process comprising at least the following steps:

- (a) providing an aqueous emulsion polymerization reaction mixture comprising a first population of polymer particles and a second population of polymer particles, wherein the polymer particles are present in an amount of at most 50 weight percent, said weight percentage being based on the total weight of the emulsion polymerization reaction mixture;

(b) polymerizing a first group of one or more ethylenically unsaturated monomers in the aqueous emulsion polymerization reaction mixture, wherein the weight percentage of the polymer particles increases to an amount greater than 50 weight percent, said weight percentage being based on the total weight of the emulsion polymerization reaction mixture, wherein at least one of the populations of polymer particles increase in mean particle diameter, wherein the mean particle diameters of the first and second populations of polymer particles differ by at least 50%,

wherein the first population of polymer particles has a larger mean particle diameter than the second population of polymer particles;

wherein the first population of polymer particles has a mean particle diameter in the range of 300 to 50,000 nm;

wherein the first population of polymer particles and the second population of polymer particles are derived from polymers derived from diene, diene/vinyl aromatic or crosslinked diene/vinyl aromatic monomers; polymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio to provide for differences in glass transition temperature; ~~ethylene-vinylacetate ("EVA") type copolymers; polymers derived from olefins;~~ copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with EVA; and, copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with polyolefins; and

wherein the compositions of the polymer particles in the first and second populations are essentially the same.

7. (Previously Presented) The process for making a polymeric additive system as recited in claim 6, wherein the weight ratio of the first population of polymer particles to the second population of polymer particles are in the range of from 10:90 to 90:10.

8. (Previously Presented) The process for making a polymeric additive system as recited in claim 6, further comprising the step of:

- (c) graft-polymerizing a second group of one or more ethylenically unsaturated monomers in the presence of the first and second populations of polymer particles to provide a polymer adjacent to the surfaces of the polymer particles of the first and second populations, wherein the second group of one or more ethylenically unsaturated monomers are the same or different as the first group of one or more ethylenically unsaturated monomers of step (b).

9. (Previously Presented) The process for making a polymeric additive system as recited in claim 8, wherein the first group of monomers forms a rubbery core polymer and the second group of monomers forms a hard shell polymer.

10. (Previously Presented) The process for making a polymeric additive system as recited in claim 9, wherein the rubbery core polymer is present in an amount of from 80 to 99 weight percent, said weight percentage being based on the total weight of the rubbery core and hard shell polymers.

11. (Currently Amended) A polymeric composition comprising a polymeric component and a polymeric additive component, wherein said polymeric composition is prepared by a process which comprises at least the following steps:

(I) forming a blend comprising the polymeric component and at least one polymeric additive system, wherein the polymeric additive system comprises:

- a) a liquid component, wherein the liquid component comprises at least 5 weight percent water (based on the total weight of the liquid component) and
- b) a solid component, the solid component comprising polymeric additive particles, the polymeric additive particles comprising:

- (i) a first population of particles, and
- (ii) a second population of particles,

wherein the first population of polymer particles and the second population of polymer particles are derived from polymers derived from diene, diene/vinyl aromatic or crosslinked diene/vinyl aromatic monomers; polymers derived from (C₁ to C₂₀) alkyl (meth)acrylates;

copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio to provide for differences in glass transition temperature; ~~ethylene-vinylacetate ("EVA") type copolymers; polymers derived from olefins;~~ copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with EVA; and, copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with polyolefins;

wherein the mean particle diameter of the first population of polymer particles is at least 50% larger than the mean particle diameter of the second population of particles,

wherein the first population of polymer particles has a mean particle diameter in the range of 300 to 50,000 nm; and

wherein the compositions of the polymer particles in the first and second populations are essentially the same, and

wherein the solid component is present in an amount of more than 50 weight percent, said weight percentage being based on the total weight of the polymeric additive system.

12. (Previously Presented) The polymeric composition prepared by the process as recited in claim 11, wherein the solid component is present in an amount of at least 60 weight percent, said weight percentage being based on the total weight of the polymeric additive system.

13. (Cancelled)

14. (Previously Presented) The polymeric composition as prepared by the process as recited in claim 11, wherein the mean particle diameter of the first population of particles is at least 100% larger than the mean particle diameter of the second population of particles.

15. (Previously Presented) The polymeric composition prepared by the process as recited in claim 11, wherein the liquid component is present in an amount of at most 50 weight percent, said weight percentage being based on the total weight of the polymeric additive system.

16. (Currently Amended) A process for making a polymeric composition comprising a polymeric component and polymeric additive particles, said process comprising at least the following steps:

(I) contacting the polymeric component with a polymeric additive system to form a blend, the polymeric additive system comprising:

- a) a liquid component, wherein the liquid component comprises at least 5 weight percent water (based on the total weight of the liquid component), and
- b) a solid component, the solid component comprising polymeric additive particles, the polymeric additive particles comprising:

- (i) a first population of particles, and
- (ii) a second population of particles,

wherein the first population of polymer particles and the second population of polymer particles are derived from polymers derived from diene, diene/vinyl aromatic or crosslinked diene/vinyl aromatic monomers; polymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio; copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates which vary in comonomer ratio to provide for differences in glass transition temperature; ~~ethylene vinylacetate ("EVA") type copolymers; polymers derived from olefins;~~ copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with EVA; and, copolymers or blends containing copolymers derived from (C₁ to C₂₀) alkyl (meth)acrylates mixed with polyolefins;

wherein the mean particle diameter of the first population of polymer particles is at least 50% larger than the mean particle diameter of the second population of particles,

wherein the first population of polymer particles has a mean particle diameter in the range of 300 to 50,000 nm; and

wherein the compositions of the polymer particles in the first and second populations are essentially the same, and

wherein the solid component is present in an amount of more than 50 weight percent, said weight percentage being based on the total weight of the polymeric additive system; and

(II) removing at least a portion of the liquid component from the blend.

17. (Previously Presented) The process for making a polymeric composition as recited in claim 16, wherein step (I) the liquid component is present in an amount of at most 45 weight percent, said weight percentage being based on the total weight of the polymeric additive system.

18. (Previously Presented) The process for making a polymeric composition as recited in claim 16, further comprising (III) forming the blend into an article.

19. (Previously Presented) The process for making a polymeric composition as recited in claim 16 wherein the polymeric component is in powder form.

20. (Previously Presented) The process for making a polymeric composition as recited in claim 16 wherein the polymeric additive particles comprise at least 10 percent by weight of a rubbery core.

21. (Previously Presented) The polymeric additive system as recited in claim 1, wherein at least one of (i) the first population of polymer particles and (ii) the second population of polymer particles comprises particles having a rubbery core and a hard shell, wherein the rubbery core accounts for 80 to 90 weight percent of the particles.

22. (Previously Presented) The polymeric additive system as recited in claim 1, wherein at least one of (i) the first population of polymer particles and (ii) the second population

of polymer particles comprises particles having a rubbery core and a hard shell, wherein the rubbery core accounts for 90 to 95 weight percent of the particles.

23. (Previously Presented) The process for making a polymeric additive system as recited in claim 9, wherein the rubbery core polymer is present in an amount of from 90 to 95 weight percent, said weight percentage being based on the total weight of the rubbery core and hard shell polymers.